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The pine marten in Northern Ireland - How to exclude pine martens from game and poultry pens

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Practical steps you can take to protect game and domestic fowl from pine marten.

Adapted from work by National Parks & Wildlife Service (NPWS) - Department of Culture, Heritage, and the Gaeltacht, Scottish Natural Heritage (SNH) and Vincent Wildlife Trust (VWT) with their kind permission.

Introduction

As pine marten numbers and its range continues to expand as the species recovers, keepers of game and domestic fowl are asking the following questions:

- **Can game birds in release pens be protected from pine martens without considerable expense?**
- **Can domestic fowl be protected from pine martens?**
- **Will pine martens reach plague proportions locally?**

This leaflet addresses these questions.

1. Preventing pine marten predation on penned game birds.

pine martens can usually gain access to pens in three ways.

- (a) Climbing over fence.**
- (b) Access through hole in fence.**
- (c) bridging using overhanging branches.**

In order to exclude them successfully, all three methods of entry need to be prevented.

a) Preventing access over a fence using electric fencing.

Electric fencing will deter pine martens from climbing up and over mesh walls of release pens. The current-carrying wires are held off the main fence on insulators. A predator climbing the fence and touching both the main fence and one of the electric wires will earth the current and experience an electric shock. This shock alarms but does not injure or kill the predator.

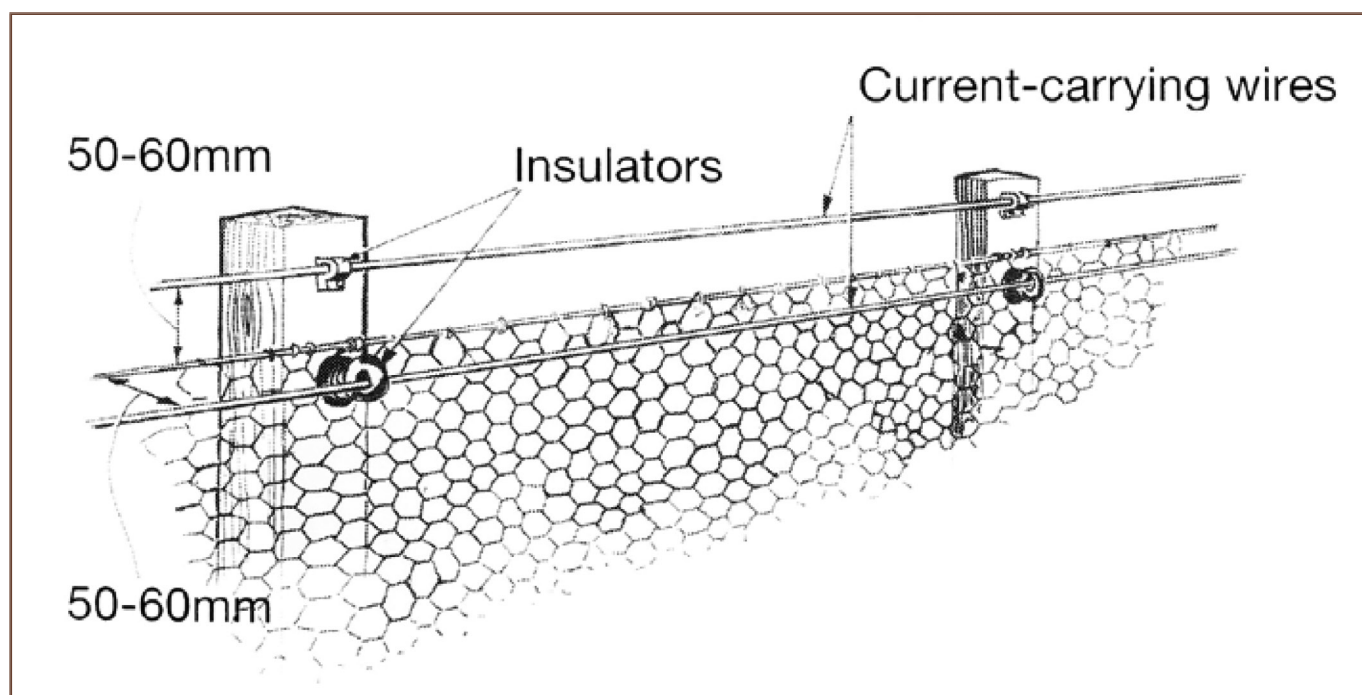
For this system to work it is essential to ensure that:

- **The predator remains in contact with the current-carrying wire for longer than the pulse interval (the voltage is generated by an energiser which emits short pulses at about one second intervals).**
- **The predator does not jump over or pass under the current-carrying wires without touching them.**

Line wire electric fencing.

The most usual form of electric fencing on or around pens consists of between one and three line wires.

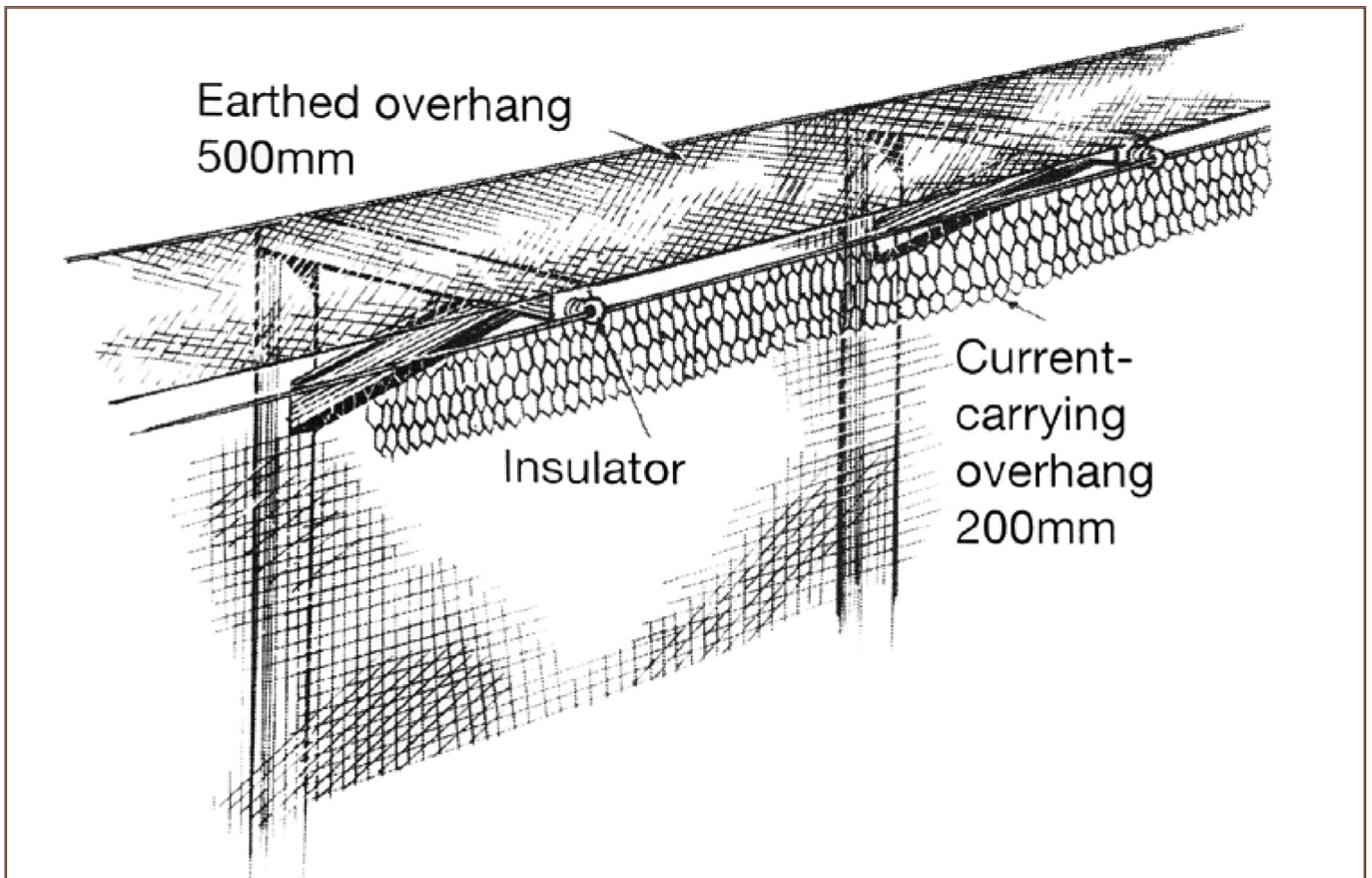
Although one wire will work, we recommend placing at least one wire 50-60mm above the top of the fence and one wire 50-60mm out from the mesh, parallel with the top of the fence. Positioning wires at lower levels may increase the chance of a pine marten passing too quickly over them and missing the voltage pulse, or jumping over them. Pine martens take only two to three seconds to climb up and over a 1.8m fence.



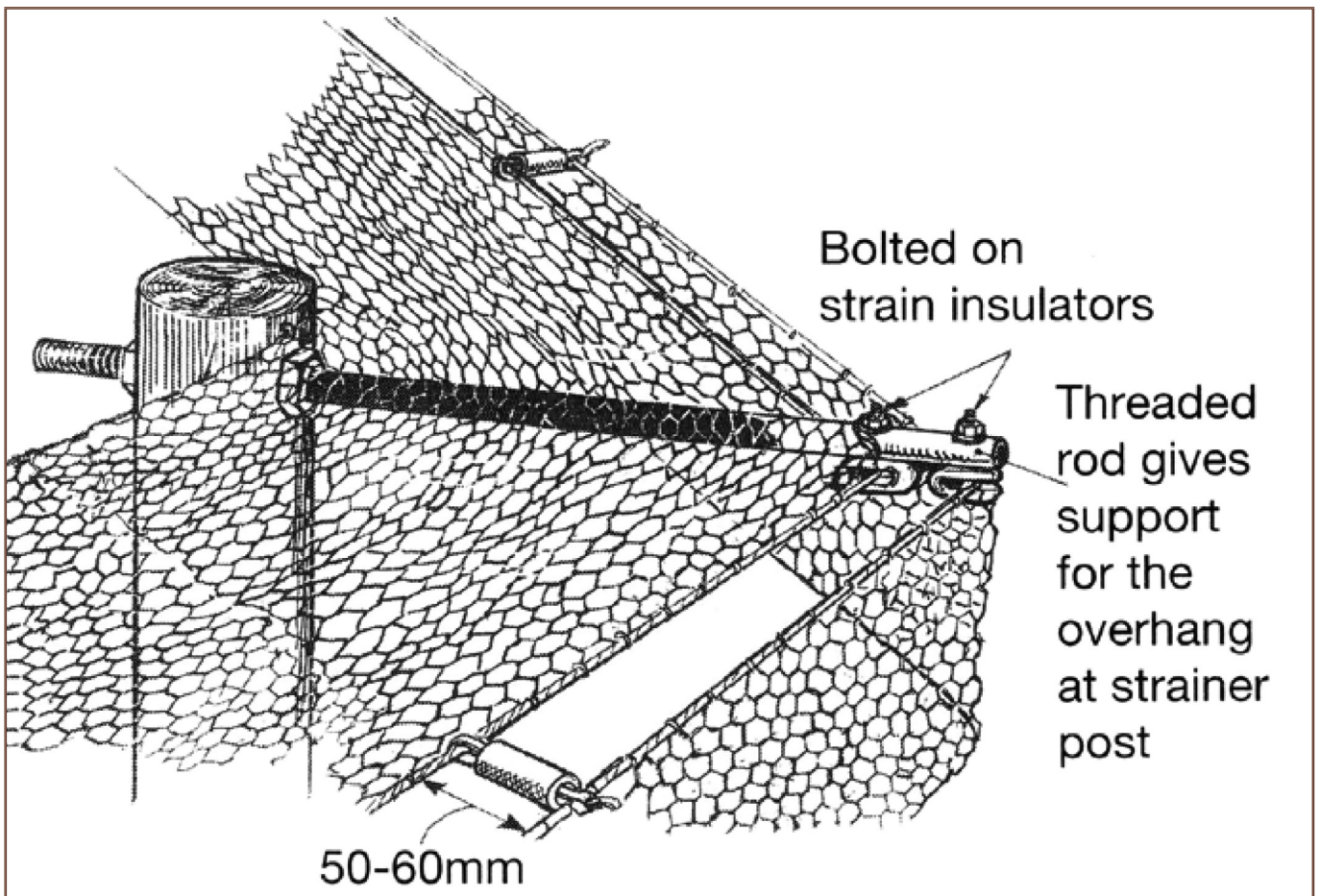
Line wire electric fencing.

Overhang electric fencing.

This is a certain defence against pine martens as it has been used to contain them in captivity. Short-circuits are prevented by the rigidity of the construction. Pine martens will take considerably longer to negotiate the overhang than to pass over the top of line wire fencing and therefore are certain to encounter an electric pulse every time they attempt to cross the fence. The overhang will also prevent a predator jumping forwards after receiving a shock. We recommend this type of fencing for newly-built permanent enclosures.



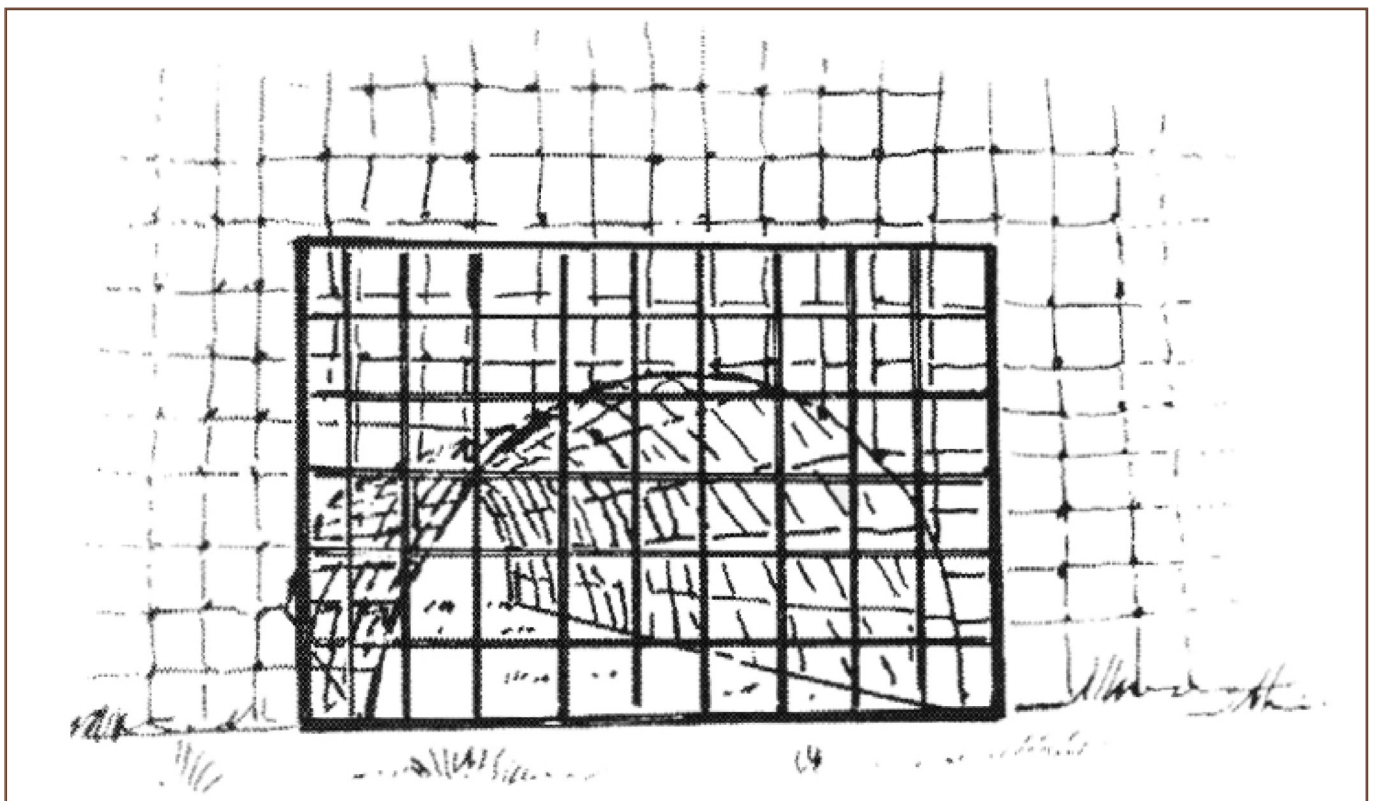
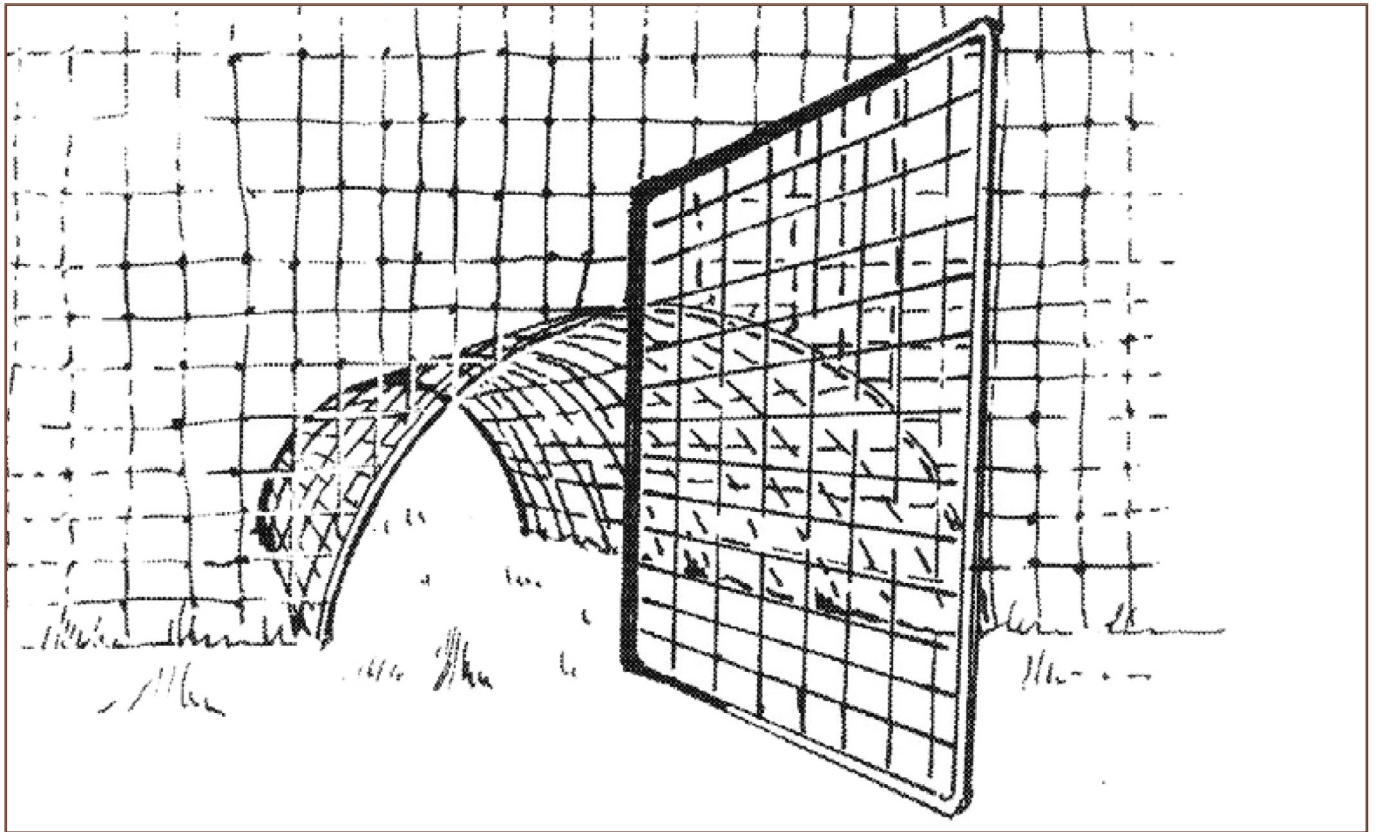
Overhang electric fencing.



Detail of overhang electric fencing.

(b) Preventing access through holes in a fence.

A pine marten can squeeze through a hole into which it can get its head. The skull width of an adult pine marten averages 58mm for males and 50mm for females. Thus we suggest ensuring a pen has no gaps greater than 45mm in its construction and that a mesh size of 31mm is used.





These pens have been fitted with electric fencing. However over hanging branches must be trimmed back 2-3 metres.

- *Pine Marten release pen proofing - Ruth Hanniffy (VWT).*

Pop holes should be shut at dusk to prevent predator access.

Pine martens will actively search for a hole through which to squeeze and may enlarge holes in rotten wood, but do not chew through sound wood or wire to enter pens. They can also dig, so the mesh at the bottom of the fence will need to be dug in or well-pegged down, to prevent them digging under it.

Re-entry tunnels for game birds (pop holes).

Some Pine martens will be deterred completely from approaching pens once they have received an electric shock; others over time will re-approach close to the fence and will thus discover re-entry tunnels. The best way to keep pine martens out of pop holes is to keep the holes shut at night when pine martens are most active. We suggest shutting the pop holes between dusk and dawn for at least five to six weeks after releasing poults.

(c) Preventing access via tree branches.

Pine martens can jump a horizontal distance of about 2m and climb trees with ease. A gap in canopy cover around the pen is essential and at least 3m is recommended.

2. Preventing pine marten predation on domestic fowl.

Making a hen house pine marten-proof.

Hen houses are generally pine marten-proof when constructed of new timber but tend to deteriorate over time, particularly around the base. There have been incidents of pine martens gaining access to hens, which had been shut in, by enlarging a hole in rotten wood. Holes of about 50mm in diameter will allow a female pine marten to enter a hen house. There has also been at least one case where a pine marten entered by lifting a sliding door, thus the door needs to be fixed shut.

- **Ensure that there are no holes into the hen house greater than 45mm in diameter.**
- **Replace any rotten wood.**
- **Close the hen house door during the hours of darkness after the hens have gone to roost.**
- **Secure the door to prevent it being lifted by a pine marten.**

Using electric fencing.

Hens can gain additional protection from electric fencing that is switched on at night after they have gone to roost. One or two current-carrying wires on the hen house, just off the ground, will deter pine martens from digging at rotten wood at the base of the house. Such electric fencing may also deter pine martens from visiting and thus reduce the risk if, on occasion, the hens are not shut in at night.

When it is not possible for someone to open and close the hen house each day, the hens can be protected within a fenced enclosure with line wire electric fencing as described earlier. In this situation the hen house door does not then need to be shut at night.

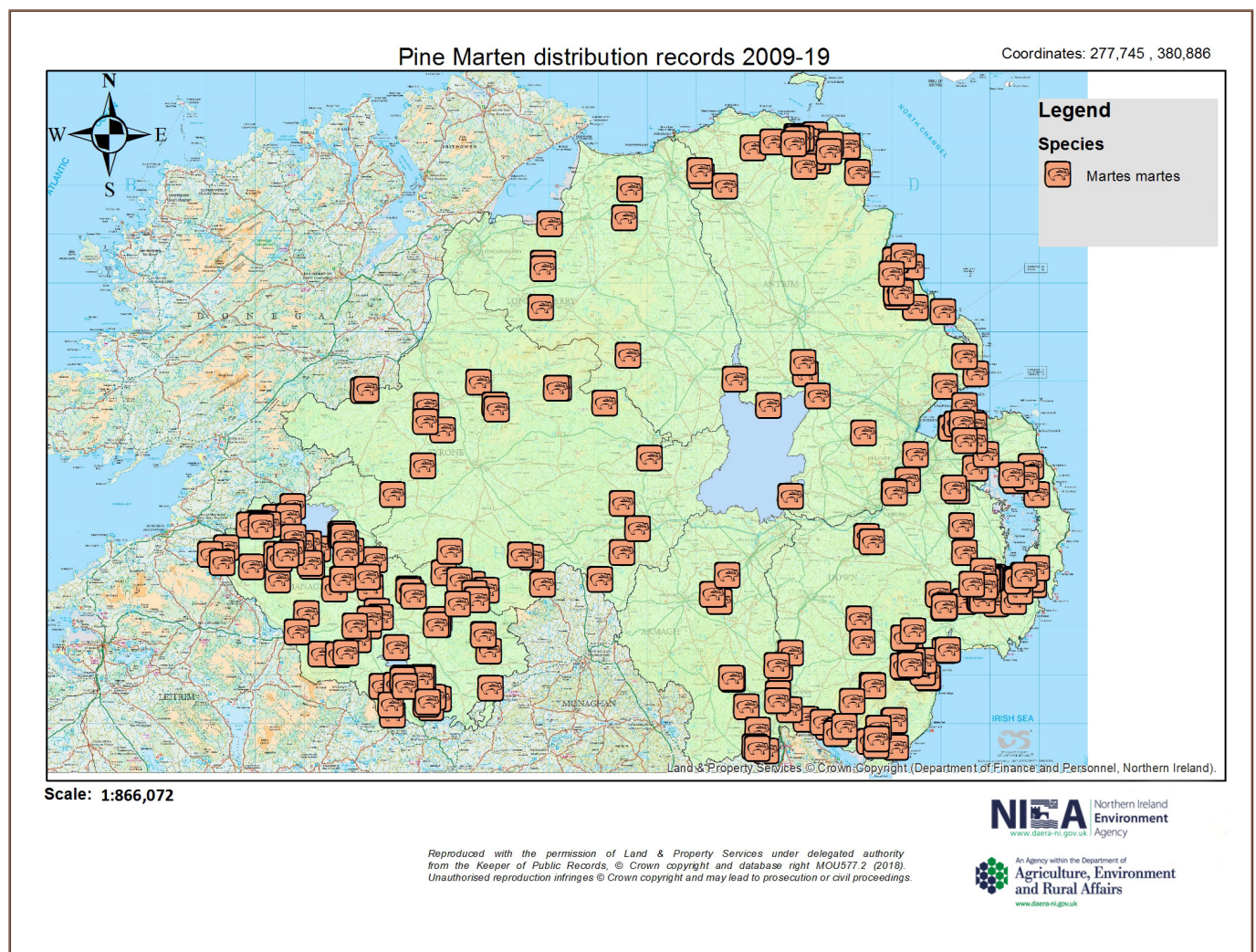
3. The pine marten on the island of Ireland - *Martes martes*.

The pine marten is native to Ireland and is one of our rarest mammals. Once common throughout the country, by the 20th century this species had become extinct from the majority of the island, in Northern Ireland the pine marten was surviving only in a few isolated and fragmented populations, mainly in the south and west of the province. This decline was the result of hunting of pine martens for their fur, loss of habitat, direct or indirect poisoning, and general persecution.

Distribution and population

The pine marten is gradually recolonising across Ireland and returning to areas where it has not been seen for decades.

Following the introduction of legal protection in 1976 in Republic of Ireland and 1985 in Northern Ireland, numbers built up slowly in its refuges in the west and south. From there, facilitated to some extent by the expansion of forestry and maturation of post war forestry plantations, it has spread northwards, with considerable increases up the east coast. Although the pine marten population is recovering, its slow reproduction rate and large territory size means it never reaches high densities. The pine marten, as its Irish name (cat crainn) suggests, are typically associated with coniferous and broadleaf wood habitats, however have adapted to heath and scrubland.



Description

The pine marten is related to the Irish stoat, otter and badger (the Mustelid family) and adults are about the size of a domestic cat. Pine martens weigh between 1.0kg-2.2kg and the head and body measure about 45cm, with females generally lighter and smaller than the males. Pine martens tails are around 20cm giving an approximate nose to tail tip measurement of 65cm. Pine martens have large feet, large ears ringed by pale fur, and a long bushy tail. The coat is a rich brown, with a large patch of pale-coloured fur over the throat and chest. In summer, the coat is sleek and dark brown, except for the throat patch, whilst in winter it is mostly light brown with dense underfur.

Pine marten facts

- **Dominant Pine martens are solitary animals. Sub-adult siblings especially males will form collations and will often cohabit and control territories together.**
- **Adults of both sexes exclude other pine martens of the same sex from their core territory - there is often considerable overlaps of home range.**
- **Breeding occurs once a year, with up to five three kits born in spring, although 2 or 3 is the usual number.**
- **Pregnant pine martens need to find a warm secure place in which to give birth, because the kits are born blind, hairless, and are wholly dependent on the mother for the first 40 days.**
- **Natural dens are in hollow trees, rabbit burrows, squirrel dreys, tree roots and rock crevices.**
- **Pine martens are slow reproducers, with both sexes mating in their second year.**
- **Diet is varied and includes berries, fruits, insects, frogs, birds, small mammals and carrion.**

Although largely nocturnal, pine martens can be active during the day, especially in summer.

Legal protection of martens

The pine marten is protected in Northern Ireland by the Wildlife (NI) Order 1985 as amended. It is an offence, except under licence, to capture or kill a pine marten, or to destroy or disturb its resting places. For further information on licences please email: elmswildlife@daera-ni.gov.uk.

Pine marten in houses

As a result of the scarcity of natural den sites, pine martens may use both inhabited and uninhabited buildings as dens.

This is most common when a pregnant female uses the roof-space of a building to give birth. If this happens, the young pine martens, called kits, may be present from March to August, although only the female may be seen entering and leaving the building. The young are often very quiet and hidden away in the roof void. However, as the kits grow and become more mobile, they can be very noisy throughout the night. The presence of a female pine marten and her young in a building can also give rise to problems of smell, hygiene and possibly also structural damage, e.g. when a pine marten enlarges an existing small gap to gain access to the building. Generally adult pine martens do not live in pairs, so if more than one animal is present, it will almost certainly be a female with young. Due to the risk of a female abandoning her kits if disturbed, no action should be taken to exclude or deter a pine marten from a building between the months of March to August. Such action could constitute an offence. If in doubt contact the NIEA Wildlife Team. We have produced a second booklet **“The pine marten in Northern Ireland - A guide for householders”**, which provides home owners the appropriate advice to manage pine martens that access their property.

Vincent Wildlife Trust



Vincent Wildlife Trust is a mammal conservation charity that has spent more than 40 years carrying out research and practical conservation, with a focus on the bats and mustelids. It has been playing a key role in mammal conservation in the Republic of Ireland since 1991, specifically bat conservation.

Submit pine marten sighting records to CEDaR www2.habitats.org.uk/records/pine-marten

Contact: The Vincent Wildlife Trust, Donaghpatrick, Headford, County Galway.
Tel: 00353 93 35304, Email: enquiries@vwt.org.uk,
<https://pinemarten.ie/>

The Northern Ireland Environment Agency (NIEA) Wildlife Team The Wildlife Team are part of the Biodiversity and Conservation Science Unit of Environment, Marine and Fisheries Group of the Department of Agriculture, Environment and Rural Affairs (DAERA).

Contact: The NIEA Wildlife Team, 2nd Floor, Klondyke Building, Gasworks Business Park, Malone Lower, Belfast BT7 2JA. Tel: 028 9056 9551/028 9056 9602
Email: elmswildlife@daera-ni.gov.uk • www.daera-ni.gov.uk